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<b>Product Name</b>	: IRF5 inhibitor N5-1	NH2-Pro-Arg-Arg-Val-Arg-Leu-Lys-COOH
<b>Cat. No.</b>	: PC-72047	
<b>CAS No.</b>	: 2088834-66-4	
<b>Molecular Formula</b>	: C <sub>40</sub> H <sub>77</sub> N <sub>17</sub> O <sub>8</sub>	
<b>Molecular Weight</b>	: 924.15	
<b>Target</b>	: Other Targets	
<b>Solubility</b>	: 10 mM in DMSO	

## Biological Activity

IRF5 inhibitor N5-1 (PRRVRLK) is a cell permeable, IRF5 peptide mimetic that selectively bind to and stabilizes the inactive **IRF5** monomer with KD of 98.8 nM.

IRF5 inhibitor N5-1 binds to endogenous IRF5, but not IRF3 or IRF7, in human primary monocytes.

IRF5 inhibitor N5-1 significantly reduced R848-induced IRF5 nuclear translocation in monocytes.

IRF5 inhibitor N5-1 binds to the C-terminal IAD of inactive IRF5 monomer and inhibits phosphorylation of Ser462, readily enters primary immune cells to inhibit R848-induced IRF5 nuclear translocation with low associated toxicity.

IRF5 inhibitor N5-1 is a potent inhibitor of TLR7-induced IRF5 nuclear translocation in monocytes and B cells, selectively inhibits IRF5-mediated inflammatory cytokine expression in PBMCs.

IRF5 inhibitor N5-1 attenuated IL-6 production and IRF5 hyperactivation in NZB/W F1 mice, and reduced kidney pathology and increased overall survival in NZB/W F1 mice from spontaneous onset of lupus and mortality.

## References

Su Song, et al. *J Clin Invest.* 2020 Dec 1;130(12):6700-6717.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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